112. (Amended) The device of claim 83, wherein the segments include at least a first segment formed of a polysilicon layer or a field oxide layer.

REMARKS

By the present Amendment, Applicants have amended claims 83, 92, 100, and 112 to more appropriately define the invention and canceled claims 119 and 120 without prejudice or disclaimer of the subject matter thereof. Claims 1-118, 121, and 122 are pending with claims 1-82 and 93-95 being withdrawn from further consideration.

In the Office Action, the Examiner rejected claims 100, 112, 113, 121, and 122 under 35 U.S.C. § 112, first paragraph; rejected claims 83, 84, 87-89, 91, 92, 98, 101-109, 112-116, and 119-122 under 35 U.S.C. § 102(e) as anticipated by Hsu et al. (U.S. Patent No. 6,236,073, hereinafter "Hsu"); rejected claims 83-92 and 96-122 under 35 U.S.C. § 103(a) as unpatentable over Lin (U.S. Patent No. 5,721,439); rejected claims 86, 90, 117, and 118 under 35 U.S.C. § 103(a) as unpatentable over Hsu; and rejected claims 85, 96, 97, 99, 100, 110, and 111 under 35 U.S.C. § 103(a) as unpatentable over Hsu in view of Lin. Applicants traverse these rejections for the following reasons.

Response to 35 U.S.C. § 112, first paragraph, Rejections

In the rejection of claims 100 and 112, the Examiner alleges that there is no support for the claim recitation "at least a first segment formed of a conductive layer formed over a dielectric layer." In the rejection of claim 121, the Examiner alleges that there is no support for the claim recitation "each segment being closer to the channel than to the contact region." In the rejection of claims 117 and 118, the Examiner alleges that there is no support for the claim recitation of each segment being less than 4.5 and

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2.5 times a length of the channel. Applicants respectfully assert these claims recitation are supported by the specification.

For example, support for the claim recitation "each segment being closer to the channel than to the contact region" may be found, for example, at page 27, lines 12-17 of the specification. Thus, the claim recitation "each segment being closer to the channel than to the contact region" is described in the specification. In view of this, Applicants request that the Examiner withdraw the rejection of claim 121.

Also, support for the claim recitation of each segment being less than 4.5 and 2.5 times a length of the channel may be found, for example, at page 24, lines 15-20 of the specification. The specification at page 24, lines 16 and 17 recites "segments 2402 are provided to all be small such that the largest dimension is less than or equal to six times the length of the channel region." Thus, the claim recitation of "less than 4.5 times" and "less than 2.5 times" recited in claims 117 and 118 respectively falls within the range described in the specification. Therefore, Applicants submit there is support for the subject matter recited in claims 117 and 118. In view of this, Applicants request that the Examiner withdraw the rejection of claims 117 and 118.

Additionally, without acceding to the Examiner, Applicants have amended claims 100 and 112 to more appropriately define the invention. Claims 100 and 112 recite, *inter alia*, that the segments are formed of "a polysilicon layer or a field oxide layer." Support for this subject matter may be found, for example, on page 26, paragraph 1 of the specification. In view of this, Applicants request that the Examiner withdraw the rejection of claims 100 and 112.

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In making the various references to the specification set forth above, it is to be understood that Applicants are in no way intending to limit the scope of the claims to the exemplary embodiments described in the specification. Rather, Applicants expressly affirm that they are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Response to 35 U.S.C. § 102 Rejections

In the Office Action, the Examiner rejected claims 83, 84, 87-89, 91, 92, 98, 101-109, 112-116, and 119-122 as anticipated by Hsu. More particularly, the Examiner alleges that Hsu discloses an electrostatic charge device comprising: a substrate, a first diffusion region, a second diffusion region, a plurality of contacts, a channel formed in a third region, and a plurality of current divider segments distributed within the first diffusion region. The Examiner further alleges that since the plurality of current divider segments are not in the same line within the first diffusion region the current divider segments can be considered unevenly distributed. Nevertheless, Applicants respectfully traverse this rejection for the following reasons.

In order to properly anticipate Applicants' claimed invention under 35 U.S.C. § 102(e), each and every element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." See M.P.E.P. § 2131 (8th Ed., Aug. 2001), quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Finally, "[t]he elements must be arranged as required by the claim." M.P.E.P. § 2131 (8th Ed. 2001), p. 2100-69. In this case, Hsu does not teach, expressly or inherently, all the elements of the claims.

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Claim 83 of the present invention is directed to a electrostatic discharge protection device comprising a combination of elements including, *inter alia*, "a plurality of current divider segments unevenly and randomly distributed within [a] first diffusion region." Claim 92 contains similar recitations. As stated above, the Examiner alleges that Hsu discloses unevenly distributed current divider segments (floating polysilicons 140) because Hsu teaches the current divider segments are not in line. Regardless of whether the polysilicons being out of line constitutes unevenly distributed, Hsu fails to teach that floating polysilicons 140 are randomly distributed. In fact, Hsu discloses that the floating polysilicons 140 are staggered in a checkered pattern. See Hsu, col. 2, lines 21-41 and Figure 5. Thus, Hsu does not teach, expressly or inherently, at least a plurality of current divider segments unevenly and randomly distributed within a first diffusion region as recited in claims 83 and 92. Therefore, Hsu does not anticipate claim 83 and 92. For at least this reason, claims 83 and 92 are allowable.

Claims 84, 87-89, 91, 98, 101-109, and 112-116 are allowable at least due to their dependence from allowable claim 83.

Claim 121 is directed to an electrostatic discharge protection device comprising a combination of elements including, *inter alia*, "a plurality of current divider segments formed within the first diffusion region between said at least one contact and the channel and each of the segments being closer to the channel than the contact region." As stated above, Hsu discloses a plurality of floating polysilicons 140. Hsu, however, discloses that some of floating polysilicons are closer to the channel region and that some of the floating polysilicons 140 are closer to the contact region. See Hsu, Figure 5. Thus, Hsu fails to teach, expressly or inherently, all the elements of claim 121.

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Hence, Hsu fails to anticipate claim 121. For at least this reason, claim 121 is allowable. Claim 122 is allowable at least due to its dependence from allowable claim 121.

Response to 35 U.S.C. § 103(a) Rejections

The Examiner rejected claims 83-92 and 96-122 as unpatentable Hsu. More particularly, the Examiner alleges that Hsu, in Figure 8, discloses an electrostatic charge device comprising: a substrate, a first diffusion region, a second diffusion region, a plurality of contacts, a channel formed in a third region, and a plurality of current divider segments distributed within the first diffusion region. The Examiner further alleges since the plurality of current divider segments are not in the same line within the first diffusion region that the current divider segments can be considered unevenly distributed. Nevertheless, Applicants respectfully traverse this rejection for the following reasons.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, the prior art reference (or references when combined) must teach or suggest all the claim elements. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or to combine reference teachings. Finally, there must be a reasonable expectation of success. See M.P.E.P. § 2143 (8th Ed.), page 2100-122. In this case, a *prima facie* case of obviousness has not been established because Lin fails to teach or suggest all the claim elements.

Claims 83 recites, *inter alia*, "a plurality of current divider segments unevenly and randomly distributed within [a] first diffusion region." Claim 92 contains similar recitations. As stated above, the Examiner alleges that Lin discloses unevenly

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distributed current divider segments because Lin teaches that the current divider segments (polysilicon islands) are not in line. Regardless of this, Lin does not teach that the polysilicon islands are randomly distributed. In fact, Lin discloses "a plurality of isolated islands are aligned along the longitudinal direction of the islands themselves, and each isolated island in a row is in relative interleaving relation with the proximate islands in the neighboring rows at both sides." Lin, col. 5, lines 52-56. In other words, the polysilicon islands are arranged in a specific pattern. Thus, Lin does not teach or suggest at least "a plurality of current divider segments unevenly and randomly distributed within [a] first diffusion region."

Therefore, a *prima facie* case of obviousness has not been established because Lin does not teach or suggest all the elements of claims 83 and 92. For at least this reason, claims 83 and 92 are allowable. Claims 84-91 and 96-118 are allowable at least due to their dependence from allowable claim 83.

Claim 121 is directed to an electrostatic discharge protection device comprising a combination of elements including, *inter alia*, "a plurality of current divider segments formed within the first diffusion region between said at least one contact and the channel and each of the segments being closer to the channel than the contact region." As stated above, Lin discloses a plurality of polysilicon islands. Lin, however, discloses that some of polysilicon islands are closer to the channel region and that some of the polysilicon islands are closer to the contact region. See Lin, Figure 9. Thus, Lin fails to teach or suggest all the elements of claim 121. Hence, a *prima facie* case of obviousness has not been established for claim 121. For at least this reason, claim 121

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is allowable. Claim 122 is allowable at least due to its dependence from allowable claim 121.

The Examiner also rejected claims 86, 90, 117, and 118 as unpatentable over Hsu. Claims 86, 90, 117, and 118 depend from claim 83 and therefore incorporate the elements of that claim. As stated above in response to the § 102(e) rejection, Hsu does not teach all the elements of claim 83. Thus, claims 86, 90, 117, and 118 are allowable at least due to their dependence from allowable claim 83.

The Examiner also rejected claims 85, 96, 97, 99, 100, 110, and 111 as unpatentable over Hsu in view of Lin. Claims 85, 96, 97, 99, 100, 110, and 111 depend from claim 83 and therefore incorporate the elements of that claim. As stated above in response to the § 102(e) rejection and § 103(a) rejections , Hsu and Lin do not teach or suggest all the elements of claim 83. Thus, claims 85, 96, 97, 99, 100, 110, and 111 are allowable at least due to their dependence from allowable claim 83.

In view of the foregoing, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: July 23, 2002

By: _____
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Appendix to Amendm nt of July 23, 2002

IN THE CLAIMS:

Please amend claims 83, 92, 100, and 112 and cancel claims 119 and 120 without prejudice or disclaimer of the subject matter thereof, as follows:

83. (Twice Amended) An electrostatic discharge protection device, comprising:

a substrate;

a first diffusion region formed in the substrate;

a second diffusion region formed in the substrate adjacent to and spaced from the first diffusion region;

at least one contact for making a conductive connection to the first diffusion region;

a channel formed in a third region between the first and second diffusion regions; and

a plurality of current divider segments unevenly and randomly distributed within the first diffusion region.

92. (Amended) An electrostatic discharge protection device, comprising:

a substrate;

a first diffusion region formed in the substrate;

a second diffusion region formed in the substrate adjacent to and spaced from the first diffusion region;

contacts for making a conductive connection to the first diffusion region;

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a channel formed in a third region between the first and second diffusion regions; and

a plurality of current divider segments formed within the first diffusion region and being unevenly and randomly distributed therein.

100. (Amended) The device of claim 99, wherein said segments include the first segment formed of a polysilicon layer [over a dielectric layer] or a field oxide layer; and the second segment formed of a polysilicon layer or a field oxide layer.

112. (Amended) The device of claim 83, wherein the segments include at least a first segment formed of [a conductive layer over a dielectric layer] a polysilicon layer or a field oxide layer.

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